

# Safety Valves

## Type 06012 - gastight



**Cryogenic Safety Valves, angle type, stainless steel, PN63, type tested TÜV-SV.1048. S/G**

Standard Safety Valve,  
gastight, closed bonnet

with carbon filled PTFE valve seal

Outlet: female thread Rc 3/8 acc. to ISO 7/1

"cleaned and degreased for oxygen service"

**Part No. 06012.X.0020**

Inlet: male thread type R (BSPT) acc. to ISO 7/1

**Part No. 06012.X.2020**

Inlet: male thread type G (BSPP) acc. to ISO 228/1

**Part No. 06012.X.5020**

Inlet: male thread NPT acc. to ANSI B 1.20.1

Available options - on request only:

- with installed elbow at the outlet



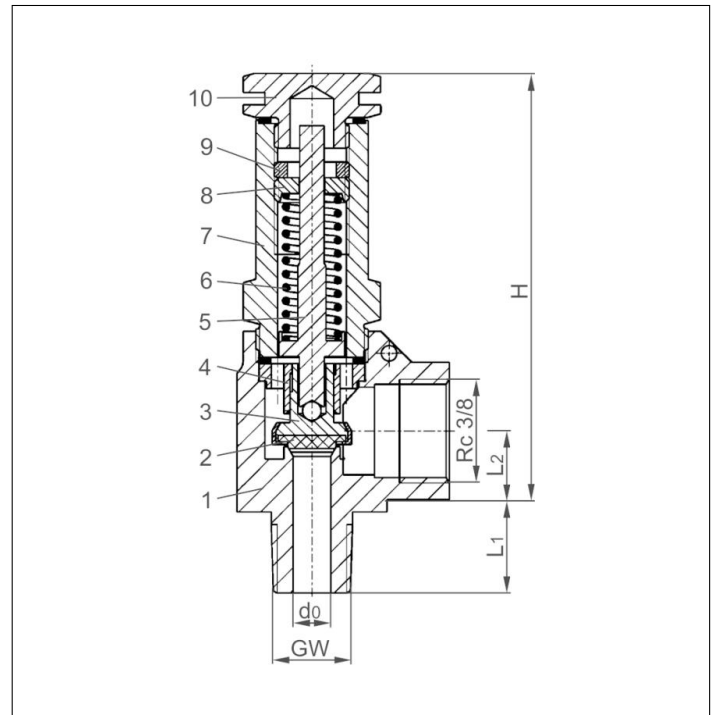
**Applications:**

Provided as safety device for protection against thermal expansion in pipeworks and parts of facilities.

Approved for air gases, vapours and cryogenic liquefied gases incl. LNG and Hydrogen.

Working temperature: -255°C / -427°F (18K) up to +150°C / +302°F (423K), suitable for horizontal installation

Materials	DIN EN	ASME/ASTM
1 Body	1.4408	SA 351 CF8M
2 Valve seal	PTFE / Carbon filled (25%)	
3 Disc	1.4301	SA 479 Grade 304
4 Guide plate	1.4301	SA 479 Grade 304
5 Stem	1.4301	SA 479 Grade 304
6 Spring	1.4571	SA 313 Grade 316Ti
7 Bonnet	1.4301	SA 479 Grade 304
8 Spring clamp	1.4305	SA 314 Grade 303
9 Thread ring	1.4305	SA 314 Grade 303
10 Cap	1.4301	SA 479 Grade 304



Type 06012	Technical data			
Nominal size	GW	1/4	3/8	1/2
Orifice	d <sub>0</sub>	6.0	6.0	6.0
Dimension code	.X.	0200	0300	0400
Set pressure range	bar	1.0-55.0	1.0-55.0	1.0-55.0
Height	H	70	70	70
Length	L <sub>1</sub>	13	15	17
Length	L <sub>2</sub>	13	13	13
Weight	ca. kg	0.18	0.20	0.22
Coefficient of discharge	α <sub>w</sub>	0.34	0.34	0.34

Dimensions in mm.

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### Discharge capacities

Medium:

Air in m<sup>3</sup>/h at 0°C and 1013.25 mbar

Air in SCFM at 60°F (15.6°C) and 14.7 psia (1013.25 mbar)

The capacity indicated below is for a fully opened valve.

d<sub>0</sub> - orifice

A<sub>0</sub> - flow area

Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1 resp. ASME Code Sec. VIII.

Set pressure in bar (g)	GW	1/4, 3/8 & 1/2
	d <sub>0</sub> (mm)	6.0
	A <sub>0</sub> (mm <sup>2</sup> )	28.3
	Medium	Air in m <sup>3</sup> /h
1.0		13
2.0		20
3.0		28
4.0		36
5.0		43
6.0		50
7.0		57
8.0		65
9.0		72
10.0		79
12.0		94
14.0		108
16.0		123
18.0		138
20.0		154
22.0		168
24.0		183
26.0		198
28.0		212
30.0		229
32.0		244
34.0		259
36.0		274
38.0		288
40.0		306
42.0		321
44.0		336
46.0		351
48.0		366
50.0		384
52.0		399
54.0		414
55.0		421

Set pressure in psig	GW	1/4, 3/8 & 1/2
	d <sub>0</sub> (inch)	0.236
	A <sub>0</sub> (in <sup>2</sup> )	0.044
	Medium	Air in SCFM
74		29
80		31
90		34
100		38
110		41
120		44
130		48
140		51
150		54
160		58
170		61
180		64
190		68
200		71
225		79
250		87
275		96
300		104
325		112
350		121
375		129
400		137
425		146
450		154
475		162
500		171
525		179
550		187
575		195
600		204
625		212
650		220
675		229
700		237
725		245
750		254
775		262
798		270